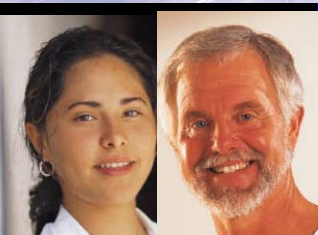




NJ Department of Environmental Protection



# Implementing New Jersey's Environmental Justice Policy

Environmental Public Health Tracking Conference

April 21, 2005

**Jeremee Johnson**

NJDEP Environmental Justice Coordinator  
Office of Policy, Planning & Science  
Office of the Commissioner

Phone: 609-777-0319

E-mail: [Jeremee.Johnson@dep.state.nj.us](mailto:Jeremee.Johnson@dep.state.nj.us)

Website: <http://www.nj.gov/dep/ej>

Task Force Website: <http://www.nj.gov>

# Executive Order

---

- EJ Petition Process for Communities
  - Petitions shall be signed by fifty (50) or more residents or workers
  - Develop Action Plan delineating the steps to reduce existing environmental burdens and avoid or reduce the imposition of additional environmental burdens
- Multi-agency Environmental Justice Task Force
- External Environmental Justice Advisory Council

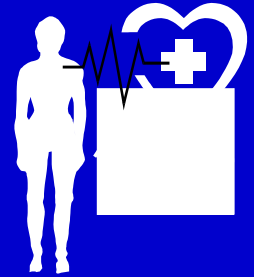
# New Jersey Executive Order: Creating a Nexus between Health and the Environment

- Directs all agencies involved with decisions affecting the environment and health to afford communities of color and low-income communities meaningful involvement in environmental decision-making
- Emphasizes importance of nexus of health data and environmental protection, citing increasing rates of childhood asthma for Black and Hispanic communities
- Supports need for livable communities consistent with State Development and Redevelopment plan and principles of Smart Growth

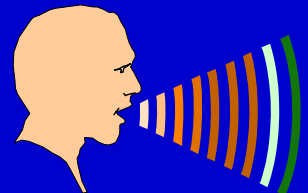
- Addresses importance of translating information into other languages based on affected community

- Cooperative effort with DEP and DOT to develop strategies to reduce fine particulate matter—a trigger for asthma

- Highlights the cumulative impacts of multiple sources of exposure and the roles of multiple agencies in the causes and factors of pollution



**El Departamento  
de Protección  
Ambiental**



# Petition Process and Action Plan development

---

- Petitions are received quarterly
- Petitioners follow guidance document in creating petitions
- Environmental Justice Task Force, with Environmental Justice Advisory Council recommendations, decides which petitions will go forward through the Action Plan development phase
- Action Plan are developed after consultation with the citizens, as well as local and county government as relevant, that will address environmental, social and economic factors that affect their health or environment.

# Status of Current Petitions

---

- Long Branch and Camden Environmental Justice Action Plans are moving forward
- On January 17 and February 24, the Environmental Justice Task Force reviewed petitions received as of Nov. 2004 deadline.
- Petitions were received from: Ringwood, Jersey City, Roselle, Linden and Newark
- All petitioners express environmental health concerns either from past or proposed projects



# Spatial Analysis Using Census and Environmental Data: Applications for Environmental Justice and Health Tracking

Steve Anderson , NJDEP Office of Policy Planning and Science

# Executive Order

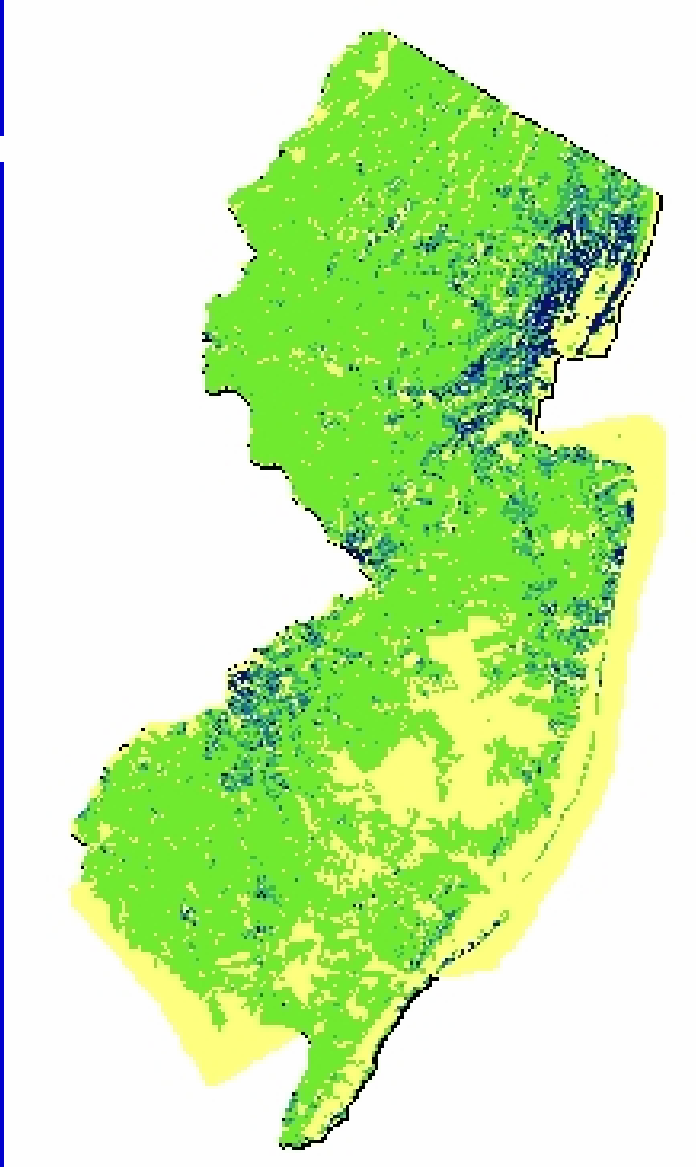
## ■ Proactive Initiatives

The DEP will use available environmental and public health data to identify existing and proposed industrial and commercial facilities and areas in communities of color and low-income communities for which compliance, enforcement, remediation, siting and permitting strategies will be targeted to address impacts from these facilities

## ■ Site Remediation Initiative

- Start with State-wide Screening of Census and Environmental Data

# Summary of NJ Census Data



- Most Densely Populated State
- Highest Household Income
- Diverse Mix of Urban, Suburban, and Rural Areas



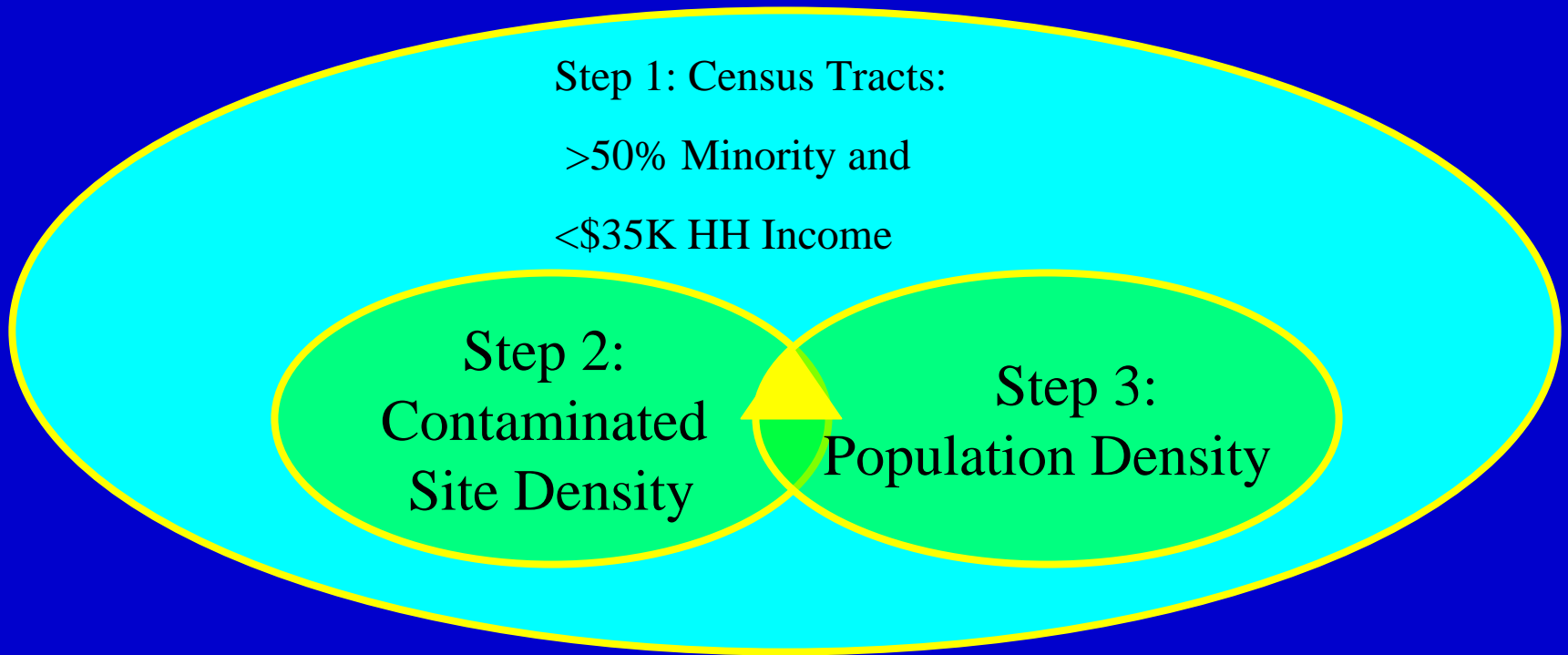
# Goals and Steps for Initiative

---

- Use a simple screening process to identify census tracts
    - EJ characteristics
    - Large number of sites
    - Large population
  - Review data for accuracy in selected tracts
- Address ongoing/continuing discharges

# State-Wide Screening

---



# Data used for Screening

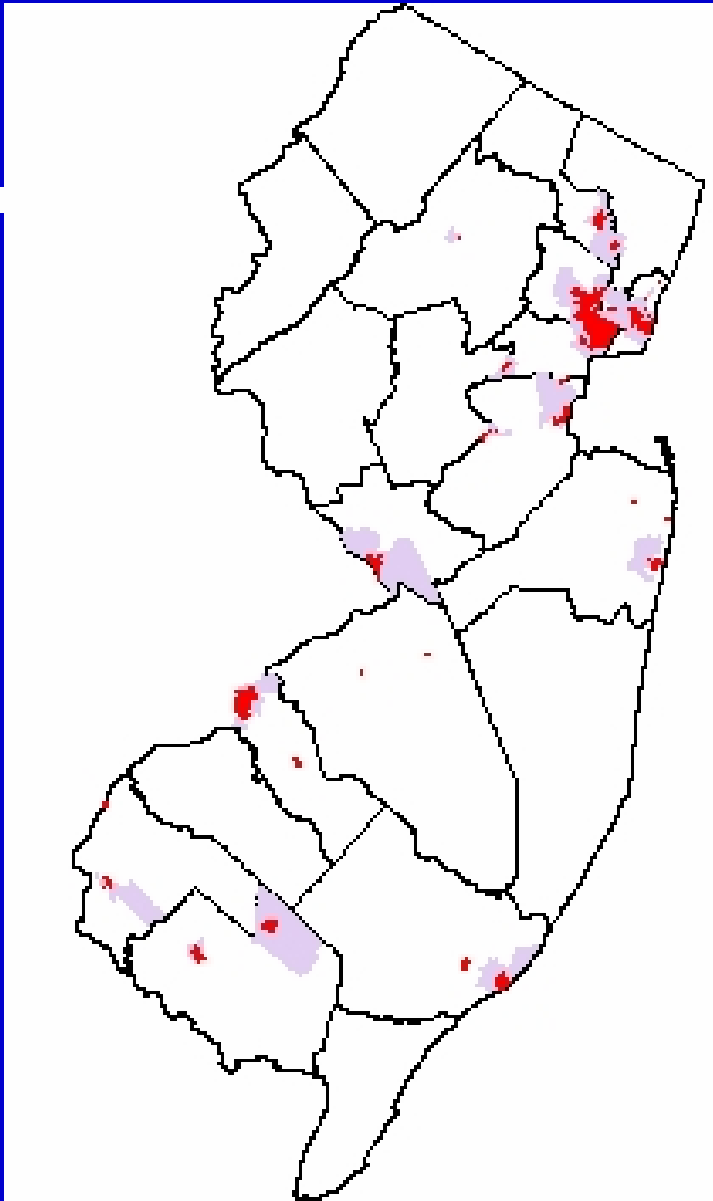
## Census Data

- 2000 census data
- Census tract level for SES indicators
- Census block level for population density

## Environmental Data

- From centralized computer system (NJEMS)
- Tracks over 15,000 contaminated sites
- Each contaminated site assigned a general "remedial level"
- Analysis used ~ 8,500 sites level C2, C3 and D

# Step 1: Census and Municipalities



>50% Minority and  
<\$35K HH Income

- 229 Tracts
- 42 Municipalities
- Includes 9.5% of  
state population

## Legend



Census Tracts



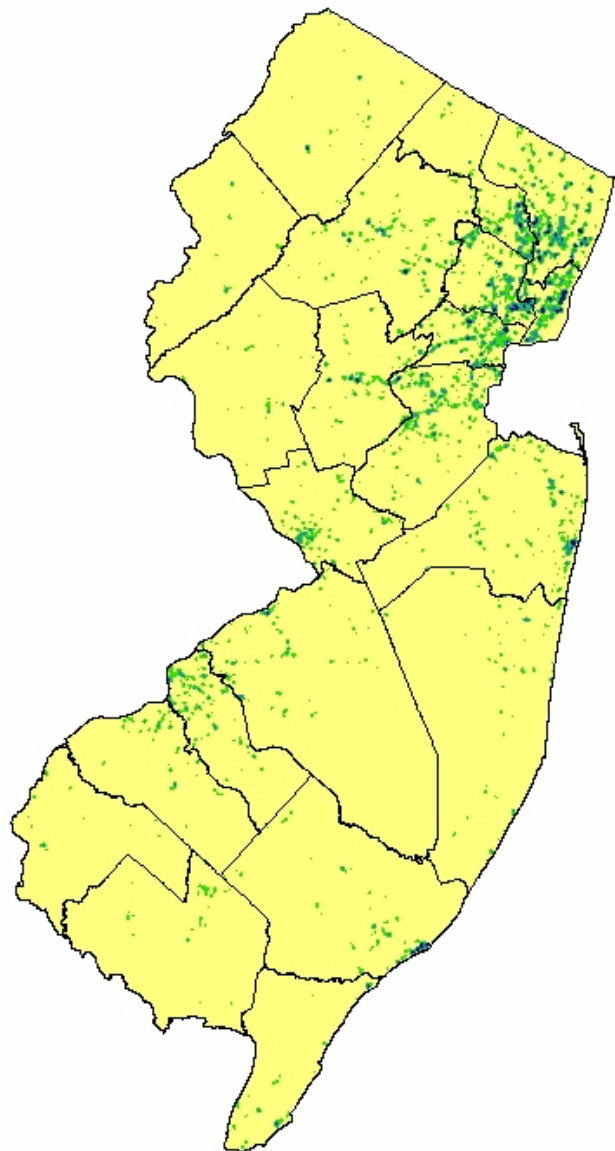
Municipalities

1:1,386,891

# Step 2: Density of Contaminated Sites

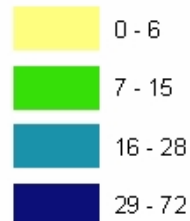
8,420 sites

- Kernel Density
- 100 meter grid size
- 0.5 mile search radius



## Legend

### Site Density



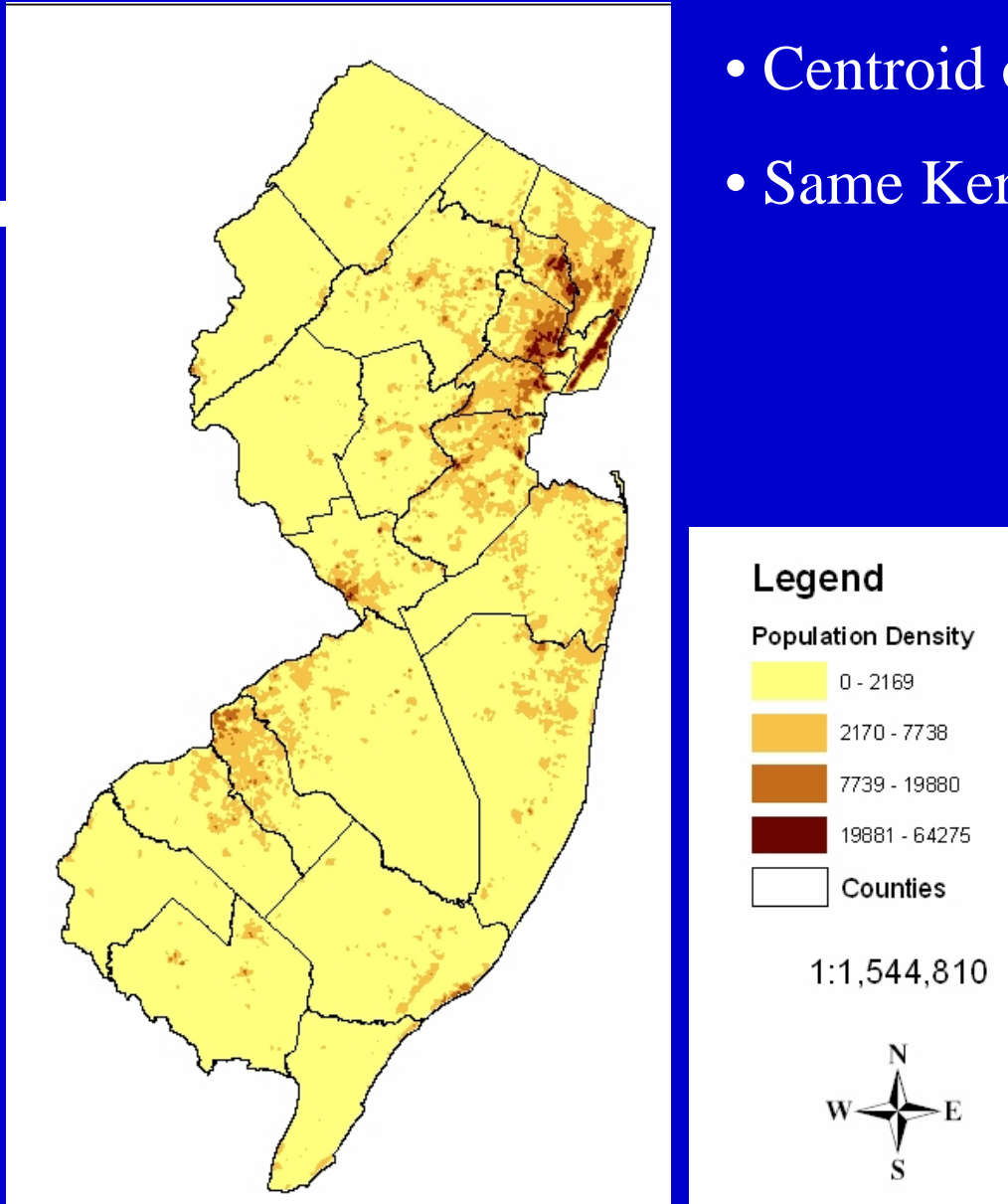
Counties

1:1,544,810



# Step 3: Population Density

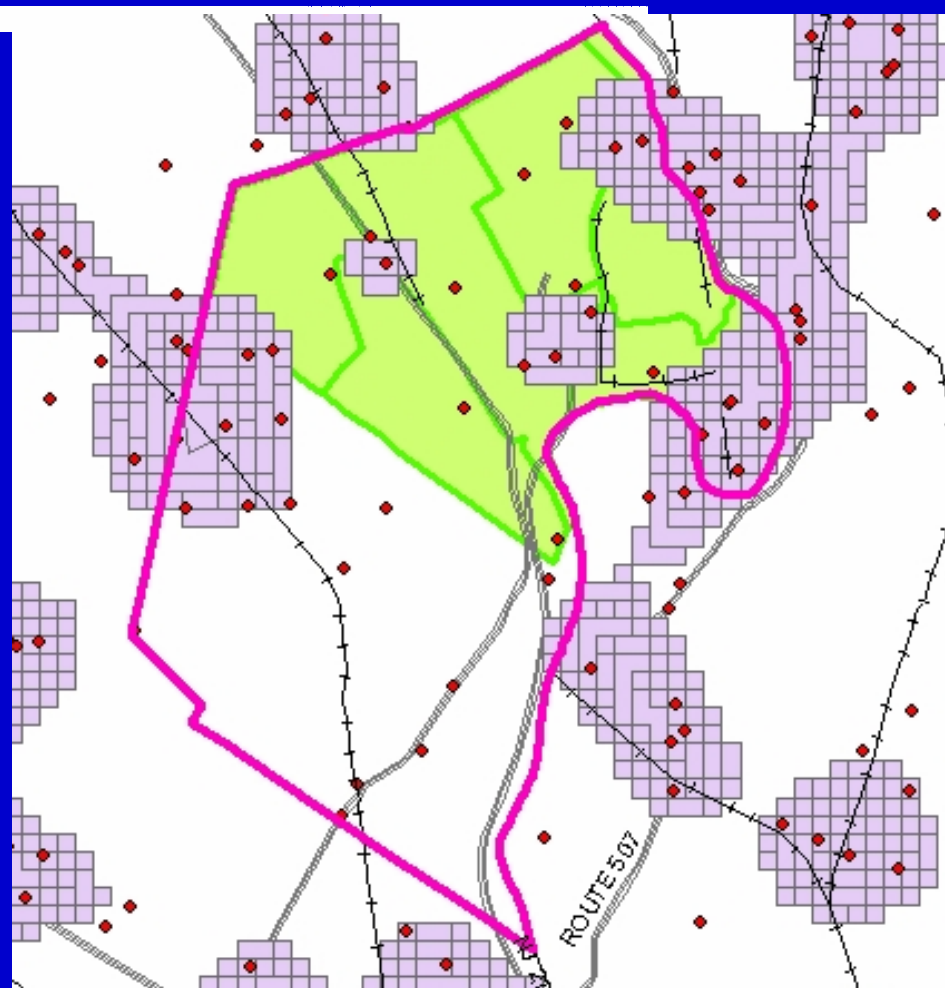
- Centroid of 141,628 census blocks
- Same Kernel density



# Results of Overlay Analysis

- High Population and Site Density
  - Highest site density in industrial tracts
  - Only 7 of 229 tracts
  - Cleanups underway
  
- High population and medium Site Density
  - 73 of 229 tracts
  - 13 of 42 Municipalities

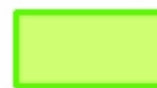
# Example: Census and Site Density



## Legend



Passaic



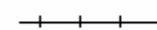
Census Tracts



Medium Site Density



Site Locations



Railroads



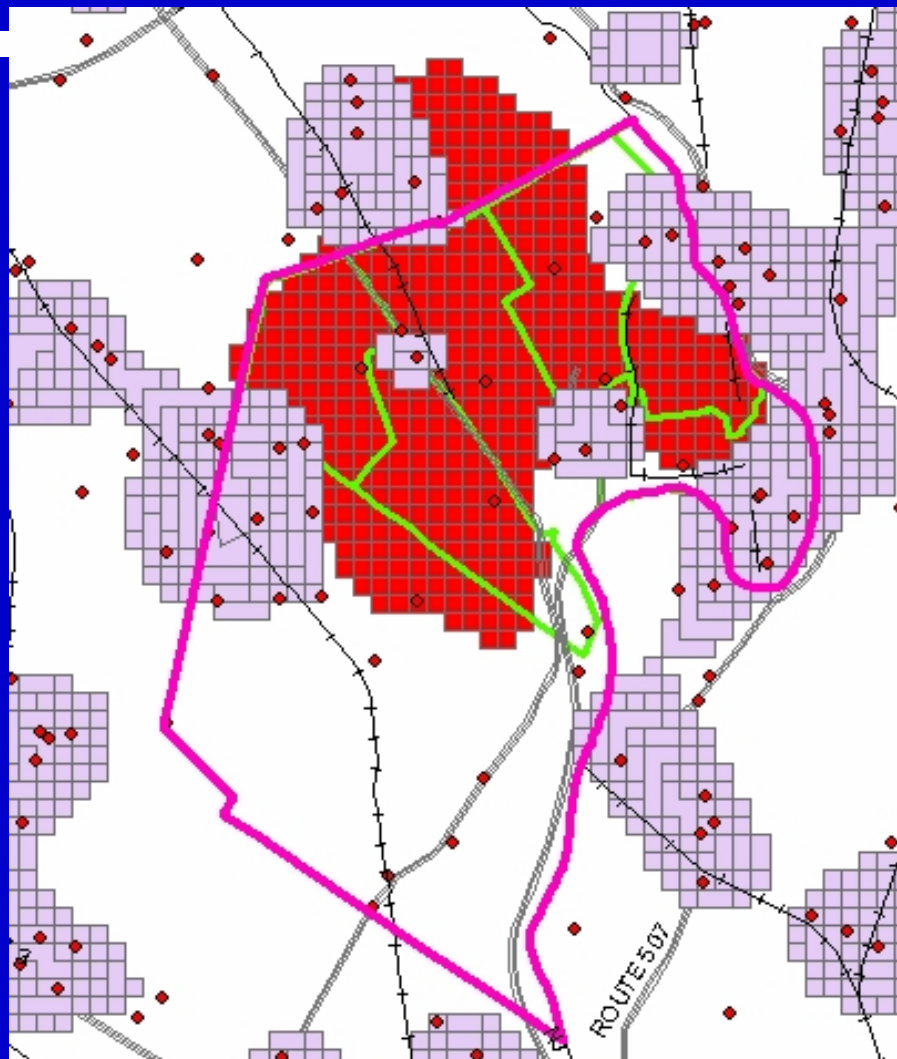
Roads (Major)










1:42,818



# Example: Population Density



## Legend

-  Passaic
-  Census Tracts
-  Medium Site Density
-  High Population Density
-  Site Locations
-  Railroads
-  Roads (Major)

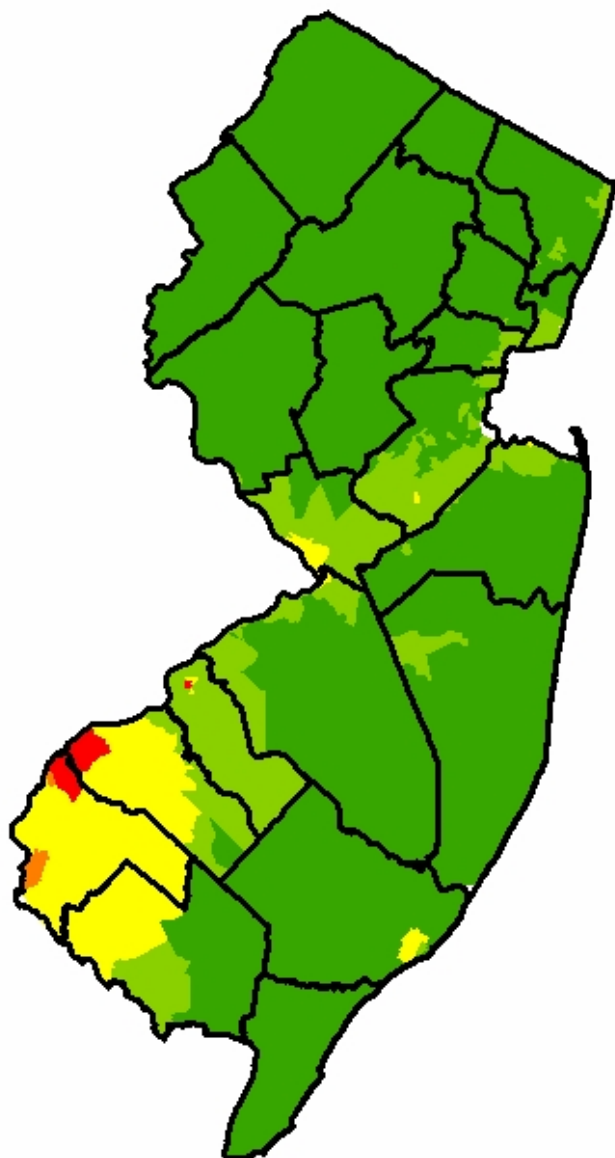


1:42,818

# Air Exposure for EPHT

- Three Demonstration Projects working with DHSS
  1. Cancer Incidence/air and drinking water
  2. Adverse reproductive outcomes/exposure
  3. Heavy metal biomonitoring/exposure
- Cancer incidence Project
  - Benzene and Leukemia
  - Vinyl chloride and brain/angiosarcoma
  - THM and bladder cancer
- Two types of Air metrics
  - EPA's 1996 NATA
  - More recent data from NJ tracking databases

# NATA Vinyl Chloride



NJ Average Annual Impact =  $5.66 \times 10^{-3} \text{ ug/m}^3$


US Average Annual Impact =  $4.87 \times 10^{-3} \text{ ug/m}^3$


Health Benchmark =  $.11 \text{ ug/m}^3$

## Legend


 Counties


### Vinyl Chloride Average Annual Impact

 Under .05 Times Benchmark

 .05 - .1 Times Benchmark

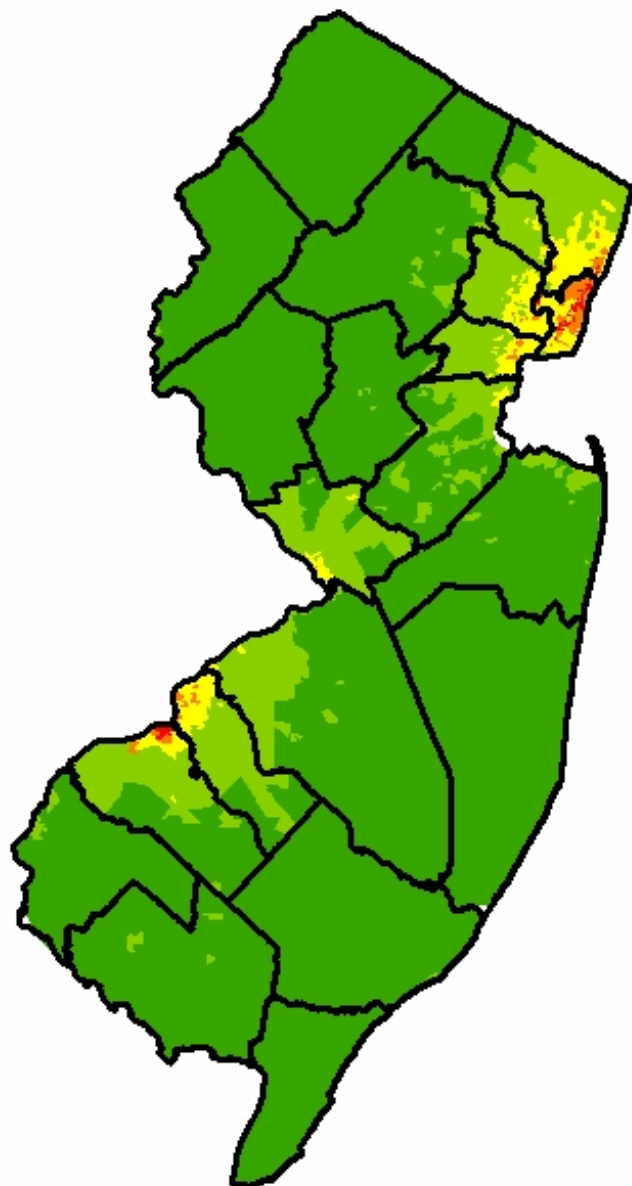
 .1 - .5 Times Benchmark

 .5 - .75 Times Benchmark

 .75 - .96 Times Benchmark



# NATA Benzene



NJ Average Annual Impact =  $1.66 \text{ ug/m}^3$

US Average Annual Impact =  $1.39 \text{ ug/m}^3$

Health Benchmark =  $.13 \text{ ug/m}^3$

## Legend

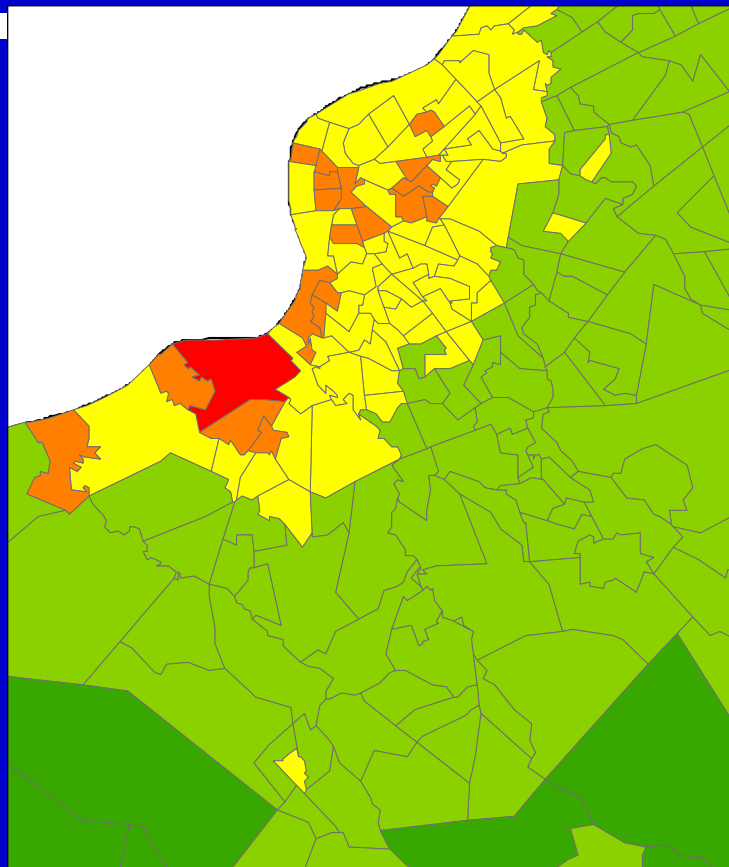
 Counties

### Benzene Average Annual Impact

-  Under 10 Times Benchmark
-  10 - 15 Times Benchmark
-  15 - 20 Times Benchmark
-  20 - 25 Times Benchmark
-  25 - 35 Times Benchmark



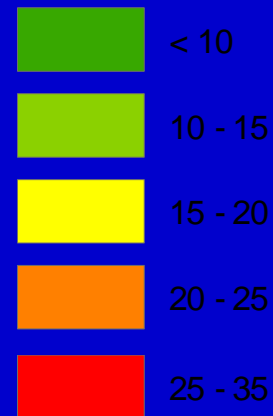
# NATA Benzene--Westville



## Legend

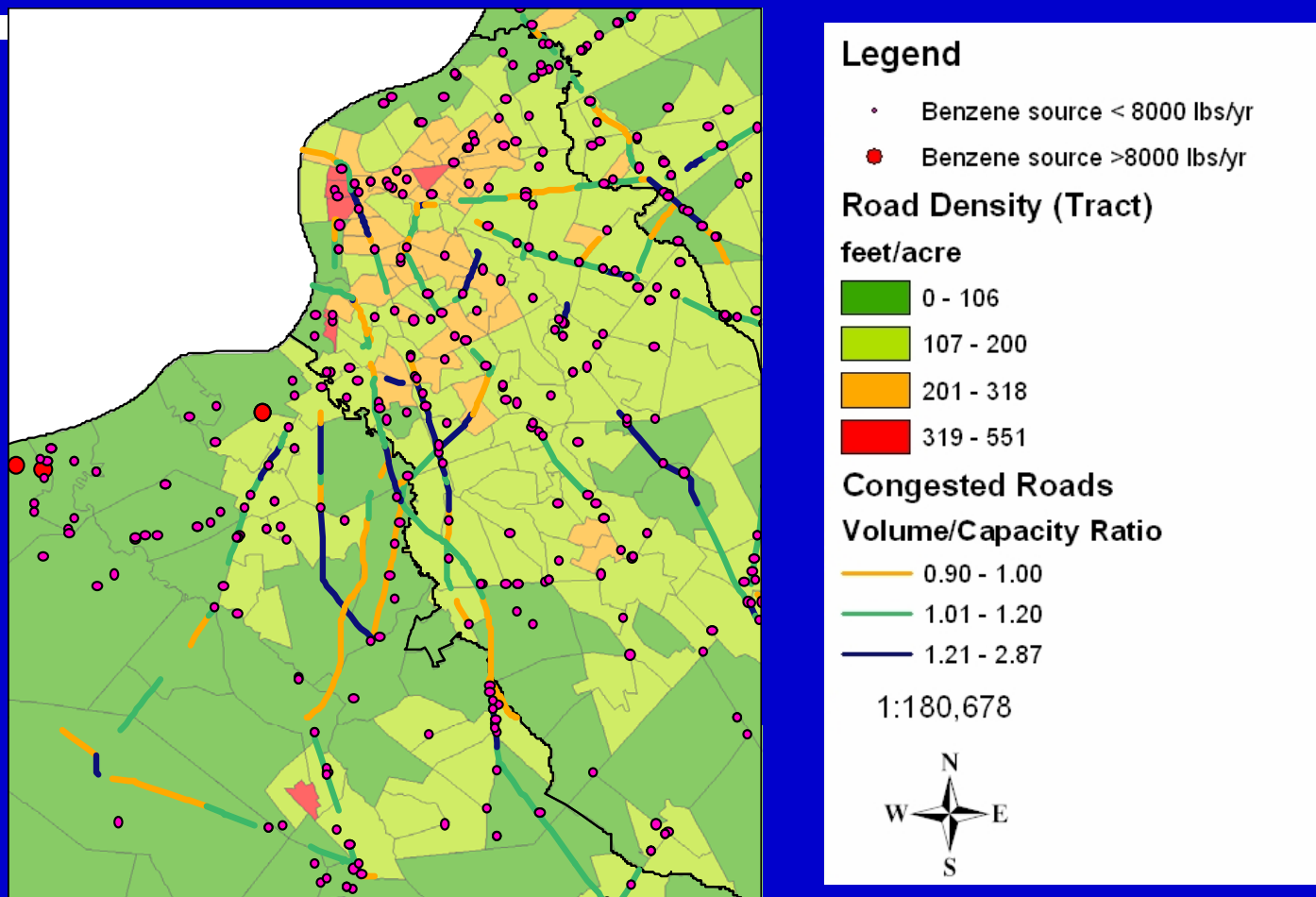
NATABenzeneCensus

Health Benchmark



1:180,678

# Benzene Tracking Data



# Other NJDEP Initiatives addressing Environmental Justice

---

- Public Health Tracking
- Initiatives to Reduce Soot
- Fish Consumption Advisory Outreach
- Mercury Emissions Rules
- Online Data Access Permitting Project
- Natural Resource Damages
- Green Acres: Parks for People
- Tree Planting
- Enforcement Sweeps
- Brownfields Development Areas program
- Site Remediation Public Participation Task Force
- Educational Collateral and Fact Sheets
- Interest-Group Activities



**For more information about Environmental Justice initiatives, contact:**



For more information, please contact:

**Jeremee Johnson**

NJDEP Environmental Justice Coordinator  
Office of Policy, Planning & Science  
Office of the Commissioner

Phone: 609-777-0319

E-mail: [Jeremee.Johnson@dep.state.nj.us](mailto:Jeremee.Johnson@dep.state.nj.us)

Environmental Justice Website:  
<http://www.nj.gov/dep/ej>

Environmental Justice Task Force:  
<http://www.nj.gov/ejtaskforce>

